

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-19 (Canceled).

Claim 20 (New): A process for manufacturing an article, made of a hydraulically-setting matrix, by molding, comprising:

- a) injection of a slurry containing a hydraulic binder and mixing water into a mold;
- b) vacuum extraction of the mixing water; and
- c) demolding of the fresh article.

Claim 21 (New): The process for manufacturing an article by molding as claimed in claim 20, wherein the injection of the slurry into the mold takes place by pressurizing an injection tank.

Claim 22 (New): The process for manufacturing an article by molding as claimed in claim 20, wherein the injection of the slurry into the mold takes place by a peristaltic pump.

Claim 23 (New): The process for manufacturing an article by molding as claimed in claim 20, wherein the injection of the slurry into the mold takes place by compressed air.

Claim 24 (New): The process for manufacturing an article by molding as claimed in claim 20, wherein the injection takes place at a pressure between 1.5 and 4 bar.

Claim 25 (New): The process for manufacturing an article by molding as claimed in claim 20, wherein the injection takes place at a pressure between 4 and 30 bar.

Claim 26 (New): The process for manufacturing an article by molding as claimed in claim 20, wherein a water/cement ratio after the vacuum extraction step is between 0.25 and 0.5.

Claim 27 (New): The process for manufacturing an article by molding as claimed in claim 20, allowing articles to be produced with a thicknesses between 0.2 and 5 cm.

Claim 28 (New): The process for manufacturing an article by molding as claimed in claim 20, wherein a duration of the vacuum extraction step is less than 1 hour.

Claim 29 (New): The process for manufacturing an article by molding as claimed in claim 20, further comprising hardening the article that takes place under relative humidity conditions between 90% and 100%.

Claim 30 (New): The process for manufacturing an article by molding as claimed in claim 29, wherein a total duration of the hardening is between 1 and 7 days.

Claim 31 (New): The process for manufacturing an article by molding as claimed in claim 29, wherein the hardening takes place in a presence of steam.

Claim 32 (New): The process for manufacturing an article by molding as claimed in claim 29, wherein the hardening takes place in an autoclave.

Claim 33 (New): An article made of a hydraulically-setting matrix, obtained using the process of claim 20, wherein the article comprises a weight percent of hydraulic binder between 2% and 98% of the total mass, a weight percent of sand between 0.1% and 95% of the total mass, a weight percent of water between 5% and 75% of the total mass, a weight percent of reinforcement fibers between 0% and 50% of the total mass, a weight percent of other fibers between 0% and 50% of the total mass, a weight percent of polymers between 0% and 75% of the total mass, a weight percent of superplasticizer between 0% and 20% of the total mass, and a weight percent of metakaolin between 0% and 50% of the total mass.

Claim 34 (New): The article made of a hydraulically-setting matrix as claimed in claim 33, wherein the hydraulic binder comprises a cement, the cement may be a quick-setting cement with a high initial strength, a conventional Portland cement of any strength, aluminous cement, a low-alkali cement and in general any type of cement whatsoever, the choice of which must be taken into account when designing the article, so as always to maintain its hydraulic binder characteristic.

Claim 35 (New): The article made of a hydraulically-setting matrix as claimed in claim 33, wherein the polymers may be of acrylic or synthetic type, resins of various typologies or any other polymer that can be used to modify the matrix and give the manufactured article a greater capacity in terms of various design and performance aspects that are expected of the article.

Claim 36 (New): The article made of a hydraulically-setting matrix as claimed in claim 33, further comprising other additives which may be accelerators, retarders, emulsifiers, air entrainers, occluded air agents, stabilizers, antioxidants, plasticizers, or thickeners, such as cellulose, cellulose fibers, cellulose hydroxides of any type, and other chemical thickeners, also starches or natural products that can be used to improve the cohesion and stability of the injected slurry, and in general any additive for the purpose of modifying the matrix according to the design and performance requirements expected of the article, and also possible production requirements.

Claim 37 (New): The article made of a hydraulically-setting matrix as claimed in claim 33, wherein the reinforcement fibers may be chopped fibers, whole fibers, a mat of whatever class of chopped reinforcement fibers, a mat of continuous fibers, or woven meshes.

Claim 38 (New): The article made of a hydraulically-setting matrix as claimed in claim 33, wherein the reinforcement fibers may be synthetic fibers, such as polyamide, rayon, nylon, PVA and polypropylene fibers, and, in general, any organic or synthetic fiber of whatever class; mineral fibers, such as carbon fiber, basalt fiber and, in general, any mineral fiber of whatever class; glass fiber, such as E-, Z-, C- and AR-glass fiber and, in general, any glass fiber of any composition; metal fibers, such as copper, steel, stainless steel, iron, cast iron and ductile cast iron fibers and, in general, any fiber of metal type.